Promote Multi-Modal Oriented Design

Activity Purpose and Overview

The purpose of this recommended MMT activity is to establish a long range planning effort for incorporating "multi-modal oriented design" (M^2OD) opportunities into Lincoln's urban landscape.

The overall goal of this recommendation is to ensure multi-modal oriented design concepts are ultimately woven into the community's future planning and development activities – including the comprehensive planning process and land development reviews. Over time, M^2OD concepts can provide the basis of expanding land use planning and site design to accommodate opportunities for enhancing the use of various alternative transportation modes – most notably public transportation, walking, and biking – for all generations.

Activity Description

Multi-modalism is about creating a diversity of life style opportunities by furthering individual transportation choices. Multi-modal oriented design accomplishes this by recognizing the link between land use and transportation – this affords the basis for these diverse opportunities to succeed. In short, M^2OD is about selectively creating new neighborhoods and re-crafting selected older neighborhoods to support diversity of choice in how we live, work, play, and travel.

Multi-Modal Oriented Design will NOT likely be applied in every Lincoln neighborhood, nor in a single way in each case. It can and will be applied selectively. Just as we talk today about offering our residents a variety of housing, employment, and shopping opportunities, the com-

munity would be wise to create real and sustainable diversity in the character and content of the mobility choices it offers present and future residents.

Such diversity of opportunity rests at the very core of the community's long term economic viability. For example, the demand for diversity in housing choices is being influenced by profound demographic changes in our nation. The aging of the baby boomer generation, the growing number of new immigrants, and a changing attitude of younger adults toward how they want to live, are all forces re-shaping our cities. A rich mix of affordable housing choice involves single family houses, townhouses, bungalows, live-work environments, and apartments. The communities recognizing and responding to these changing markets will thrive economically and socially; those that ignore these trends and seek to pursue outdated options will stagnate.

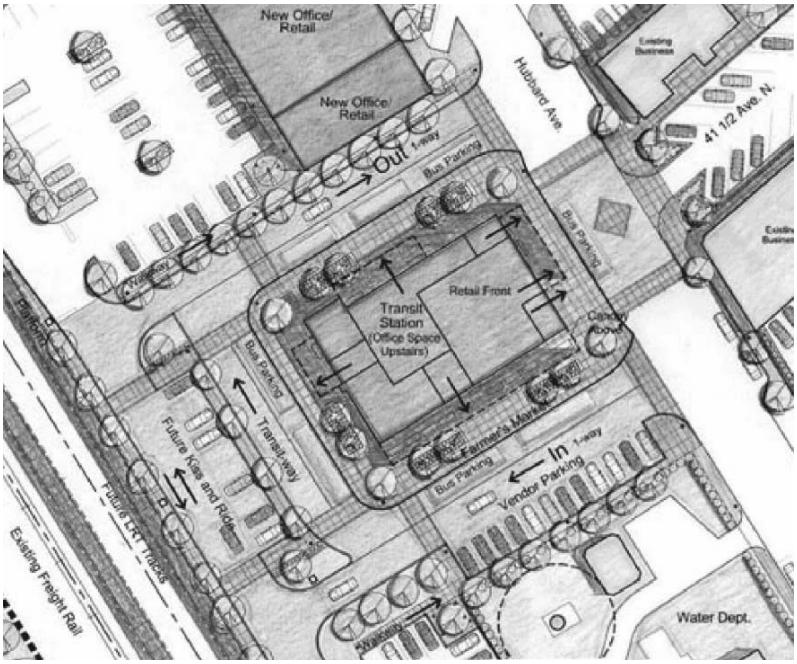
M²OD Concept Options

Multi-modal oriented design is not intended to be prescriptive or singular in its application. As shown below, M²OD can and should be applied in a variety of venues:

Type	Land Use Mix	Target Housing (DU/Per Acre)	Housing Types	Notes/Comments
Urban Downtown	High Density Office Entertainment Retail Services Residential	40-60+ units	Multifamily Loft	Focal point for transit services; pedestrian needs balanced against traffic flow; bikes accommodated on street; deck parking common
Urban Neighborhood	Residential Office Mixed Retail Services	15-20+ units	Multifamily Loft Townhome Single Family	Transit w/ 10-15 min peak and 15-20 min off peak; pedestrain and bikes well integrated in design; limited deck park
Village-Style Neighborhood	Residential Retail Local Office Services	6-12+ units	Multifamily Townhome Single family	Transit w/ 20 min peak and 30-45 off peak; pedestrian and bikes well integrated in design; shared parking
Suburban Neighborhood	Residential Local Retail Local Services	4-7 units	Single family Townhome	Transit w/ 20-30 min peak and 45-60 min off peak; pedestrian and bikes well integrated in design
Suburban Center	Retail Office Entertainment Residential	35-50+ units	Multifamily Townhome Specialty Residential	Supported with moderate level of transit ervices; pedesrian and bikes move safely and easily within center; park and ride lot possible
Neighborhood/ Village Center	Retail Office Residential	8-12+ units	Multifamily Townhome Specialty Residential	Supported with modest level of transit services; pedestrian and bikes move safely within center; shared parking

Key M²OD Planning and Design Principles

As suggested from the above table, multi-modal oriented design can be applied successfully across a broad range of urban settings. And in fact, the farther ranging and imaginative their application, the greater potential for success.



"M²OD" encompasses a diverse family of land use planning and site design concepts designed to encourage a mix of mobility options. No single mode is given preference, but rather are viewed as mutual. The intent is to create a balance between various modes so they work to complement each other. M²OD is NOT anti-auto-mobile. Rather it challenges standing notions that other modes – such as public transportation, trails and pedestrian-ways, and bicycles – can't co-exist with cars.

Multi-modal oriented design concepts consider the character and mix of land uses, building design and orientation, pedestrian accommodation, vehicle parking, and many other ideas. M²OD is in part about creating appealing and lasting lifestyle options. While it can be adapted to many different development forms, there are some basic principles that apply. In a recent publication called The Urban Design Compendium, the authors note successful M²OD developments typically seek to achieve a number of core objectives with one of those being the concept of "place making." Some of the attributes they assign to this concept include:

- **Places for People** - These areas should be well used, safe, comfortable, varied, and attractive. They need to be distinctive and offer variety, choice, and fun.
- **Enrich the Existing** - Developments should enrich the qualities of existing urban places. This means encouraging forms that arise from and complement its setting. This applies at every scale – be it the city, the neighborhood, or the street.
- **Make Connections** - Places should be easy to get to and should be integrated physically and visually with their surroundings. This requires paying close attention to how people can get around by foot, bicycle, transit, and car.
- **Work with the Landscape** - These areas should balance the natural and man-made environment and utilize each locations intrinsic resources – the climate, land form, landscape, and ecology – to maximize the experience.

- **Mix Uses and Forms** - Amenities that are stimulating, enjoyable and convenient should be offered to a wide range of possible users. This needs to be woven in with different building forms, uses, textures, and densities.

- **Manage the Investment** - Sustainable projects must be economically viable, well managed, and well maintained. This means understanding the market, ensuring long term commitment from the community and private sector, and integration into the design process.

- **Design for Change** - New development needs to be flexible enough to respond to future changes in use, lifestyle, and demographics. Flexibility must be evident in the use of property, public spaces, and infrastructure. This will mean new ways of viewing transportation, traffic management, and parking.

To facilitate an understanding of the ideas underlying multi-modal oriented design, the concept can be broken down into two major principles: (1) Land Use Character, Mix, and Intensity; and (2) Mobility Friendly Environments.

(1) Land Use Character, Mix and Intensity

Multi-modal oriented design in certain cases encourages a rich diversity of compatible and complementary land uses. Such uses should relate to the intended physical character and scale of the neighborhood or center and enhance linkages to surrounding uses. The size, shape, and location of buildings on their parcels should create patterns that help define neighborhood character. New development should be compatible with and further the "feel" planned for the area. This overall design principle can be achieved through a variety of approaches:

- **Mixed and Multiple-Use Development** – Public policies and standards should accommodate the integration of retail, office, service, entertainment, education, and residential land uses. The specific mix, amount, and intensity of such uses will vary depending upon the type of development projected for the neighborhood. Some areas may have higher concentrations of commercial-type uses with residential uses complementing these activities. In other locations, residential uses may serve as the dominate land use pattern with local office, retail and services supporting the mix of uses.

  In general, these developments should have a conveniently located commercial area containing a mix of office, retail, and service uses. The core commercial district should be centrally located to support transit usage. The size and intensity of the center will vary to fit the needs and preferences of the neighborhood it supports.

- **Mix of Housing Types** – Residential development is a key ingredient in the ultimate success of any multi-modal ordinated development. No single form of residential use is likely to be called for in this style of development. Diversity of ownership patterns, price ranges, and building types should also be considered.

- **Intensity of Development** – The intensity of development will typically transition from a higher level of development near the core of the district to lower levels nearer the surrounding areas. Residential densities will vary in accordance with the projected build out of the district. Residences per acre could be over 60 units per acre in a downtown setting; ratcheting down to near 20 units per acre in "urban neighborhoods;" and as low as 4 to 7 units per acre in suburban areas. In general, the higher the density of residents within an area, the greater the potential for sustaining a diversify of modal choice.

- **Building Placement and Orientation** – Design guidelines should encourage the appropriate placement and orientation of buildings – residential, commercial, and public. Buildings should aid in defining the street right-of-way and pedestrian space. The main entryway to commercial buildings should face streets, plazas, or parks, and not interior blocks or parking lots.

- **Fenestration** – "Fenestration" is a fancy word describing the way windows and doors are arranged in a building. The objective for M^2OD developments is to "enliven" the street and public spaces by providing visual interest encouraging people to walk and use alterative transportation services. Blank walls along pedestrian ways should be avoided. Windows may be sought at ground level with a certain percentage of glass often specified. In a district in Atlanta (GA) for example, fenestration standards are used to promote visual interaction between the street and adjacent buildings. Standards are set to ensure a minimum level of window placement along public ways relative to window length, height and materials.

- **Block Size** – The length of any given block can be a critical design element in determining the success of such developments. The longer the block length the less appealing the development is for foot traffic and on-street interaction. Standards for a district in San Antonio (TX), for example, indicates, "The size of blocks within the area shall be minimized to create a neighborhoods of buildings oriented to streets. The length of any block face should generally be 200 to 250 feet long, and never longer than 350 feet. Blocks shall be delineated by either streets or major pedestrian separations."

- **Focal Points** – Transit stations/stops within the area should be given a visual and functional focal point. This aids in generating ridership and heightens the sense of user security and orientation.

(2) Mobility Friendly Environment

Multi-modal oriented design should foster a built environment accommodating a choice of modes – i.e., pedestrians, bicycles, public transportation, and automobiles. At its core, the design should support an access pattern for multiple modes while assuring integration, safety,

and ease of use for all persons. The guidelines for accomplishing this are segregated into the following topics: (a) Street System; (b) Pedestrians and Bicyclists; and (c) Automobile and Buses.

A. Street System

- **Multiple Routes to Core Uses and Transit Services** – Street systems within residential subdivisions should be coherent, recognizable, and interconnected. Streets should provide direct and understandable access for all modes.

- **Local and Collector Streets** – Local streets should be designed to balance the needs of both vehicular and non-vehicular travel. Street width should aid in calming vehicular traffic to safe levels. The City should continue to work with developers to implement the residential street tree program to offer a pleasant visual experience. Collector streets should provide ease of access into and out of residential developments for all modes. Directness of collector streets – in contrast to many newer circuitous street designs – should be given stronger consideration in future subdivision plans. Collector streets should also be designed to ensure a safe and appealing environment for families and individuals on foot or riding bikes.

B. Pedestrians and Bicyclists

- **Expand Walking/Riding Network** – The objective in designing residential, commercial, and public developments should be to create a reasonably robust network of pedestrian and bicycle pathways. These pathways should offer frequent direct points of connection and multiple routes to desired destinations. The networks can combine the community-wide trails system, sidewalks, and other public pathways into a system of travel. These can involve both on- (for bicyclists) and off-street facilities. Efforts should be made to coordinate the design of such networks with local schools so students are encouraged to walk or bike as appropriate.

- **Paths to Destinations** – Pathways for pedestrians and bicyclists should be reasonably direct and clearly delineated. Signage and other markings are also desirable to aid the user in finding their way.

- **Pedestrian-Vehicular Conflicts** – Crosswalks at intersections and at other street crossings should be clearly marked using contemporary techniques and technologies. This may include use of alternative materials, markings, texture, color or height to show priority for the pedestrian at crosswalks and intersections.

- **Sidewalks** – The goal should generally be to have sidewalks on both sides of each street - which is now a part of the City's Subdivision Ordinance. Sidewalks should be well lit, visible to adjacent uses, setback from moving vehicle, and in compliance with the Americans with Disabilities Act. Sidewalk width should be varied to reflect user activity levels. In high volume areas, sidewalks may be widened appropriate to scale. Consideration should be given over time to revising the minimum width of sidewalks in low- and medium-density residential areas to perhaps five feet in width.

- **Bicycle Network** – In other portions of this report are descriptions of projects to enhance the overall bicycle network – trails, sidewalk widths, on-street bicycle lanes, etc. These can all aid in promoting M^2OD for the bicycle user.

- **Bicycle Parking** – Also described in other parts of this report are descriptions of bicycle support facilities that heighten the biking experience. One of these activities is the provision of secure bicycle parking facilities - namely, bicycle racks, storage lockers, check-in storage, and sheltered bicycle parking. Such facilities should be located near building entries or in locations that are convenient to the bicycle rider.

- **Waiting Areas** – Users of public transportation should be provided waiting sheltered areas. These should provide protection from sun, wind, and precipitation. They should be plainly visible from adjacent activities and be placed so as to not impeded pedestrian and bicyclist movement.

- **Grade Separation** – Where feasible, efforts should be made to provide grade separation to segregate motor vehicles from pedestrians and bicyclists.

- **Parking Lots** – Parking lots should be designed to facilitate pedestrian movement. Lots should have walkways and other clearly identified pathways. Large surface parking lots should be divided into smaller areas to prevent dangerous pedestrian/biker and motor vehicle conflicts. Landscaping should be incorporated as part of the pathway design. Roadways should not inhibit the ease of access between smaller parking lot areas nor within the overall commercial area.

C. Automobile and Buses

- **Balance of Access** – Efforts should be made to provide a balance of access among mode choices including pedestrians, bicycles, buses, and cars and trucks.

- **Park-and-Ride Lots** – Over time, the feasibility of using park-and-ride lots will increase. Such facilities should be designed so as to minimize conflicts between pedestrians and autos.

- **Parking Lot Location and Layout** – Buildings should be fronted onto pedestrian-oriented streets and not parking lots where possible. Parking lots are better located to the side or rear of buildings or in the interior of blocks.

- **Access to Bus Stops** – Access to bus stops should be as direct as possible to encourage transit usage. Mid-block or cul-de-sac short cuts may be necessary to compensate for inadequate street layout.

- **Bus Stop Amenities** – Benches, shelters, and transit system information at bus stops should be encouraged.

Activity Time Line and Responsibility

The integration of M^{2}OD standards and principles into the community's land use planning and development process will take considerable time. The ideas outlined above will need to evolve over time and be molded to fit the specific Lincoln situation. While a select few actions may occur early in the implemention sequence, the full impact of multi-modal oriented design will not be felt until well into the future.

The strategy for putting multi-modal oriented design in place in Lincoln will need to be pursued on several fronts:

- **Comprehensive Plan and Long Range Transportation Plan (LRTP)** – The foundation for land use and transportation planning in Lincoln rests within the "Comprehensive Plan" and the "Long Range Transportation Plan." These two documents – and the processes that create them – embody most of the fundamental ideas upon which other regulations and standards are derived. These plans are revised on a routine basis – about every five to seven years. As these Plans are brought forth for updating over the next several years, the concepts described above should be viewed against the two Plans's existing text and guiding principles. As appropriate, the Plans should be modified and updated to introduce additional multi-modal concepts into them. A number of the M^{2}OD principles are already part of each Plan but may be in need of further detailing and description.

- **Multi-Modal Transportation Coordinator Position** – As outlined in another section of this Report, it is recommended a staff position be identified within City government whose primary responsibility is to implement the goals and ideas of this Plan. This staff person can play a central role in fostering the concepts of M^{2}OD in Lincoln's planning and design process. The MMT coordinator should work to further define the specifics of the design elements of multi-modal oriented design and see their adoption and usage. As suggested earlier, this will not be something done quickly nor necessarily easily. It will take time to gain community buy-in to these design concepts and to witness the results of their use.

- **M^{2}OD Standards and Guidelines** – Independent of the creation of a MMT resource staff position, work could begin over the next several years to draft written guidelines implementing the multi-modal oriented design concepts. These guidelines are likely to be developed in incremental stages addressing varying aspects of this style of development. The advantage of having draft written guidelines is in being able to clearly define the intent and execution of these principles.

- **Subarea Plan Development** – Over the next several years it is probable that various "subarea development plans" will be prepared across the Lincoln area. These plans may be for new areas situated along the urban fringe, or they may be in older established locations of the city. In either case, this planning process can provide opportunities to examine the use of M^2OD concepts in a real world situation. The community and city staff should use these occasions to discuss the application of M^2OD approaches in generating land use alternatives and in designing planning and engineering solutions.

Responsibility for implementing multi-modal oriented design concepts will ultimately reside across several city departments – including Planning, Public Works and Utilities, Urban Development, Building and Safety, Parks and Recreation, Health, Mayor's Office, and Law Department. In the near term, the specific task of further developing and applying these ideas would logically fall to the multi-modal transportation coordinator, should such a position be created. If the position is not established, then the Planning Department, Public Works and Utilities Department, and Law Department should put this task in their mid-range work program for future consideration.

Activity Resource Needs

The two major tasks associated with this activity are: (1) development of the detailed M^2OD guidelines; and (2) implemention of the M^2OD guidelines.

Development of the detailed M^2OD guidelines could occur largely "in-house" by city staff, although it may be necessary to secure outside design assistance for the final "guidelines" document. It is possible that this additional non-city assistance could range from $10,000 to $20,000 in cost.

Implementation of the guidelines would occur as part of the City's on-going planning and development review process. While there would obviously be an expense associated with the staff time involved with implementation, no additional resources would be anticipated to be requested.

This page left blank intentionally.